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EDITOR.

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APICULTURAL NEWS ITEMS.

EDITORIAL AND SELECTED.

The Dew hangs jewels in the heath,
Buds bloom for which the bee has pined ;
I haste along, I quicker breathe,
The night is still, the moon looks kind.

Honey in one-pound sections sells much faster than that in larger packages. It is a neat package, and small enough for any family, and can readily be sold for 25 cents—the popular retail price.

"How many kinds of the honey-bees are there in North America?" asks a correspondent. We now think of but seven: The natives (brown or black), Italian, Cyprian, Syrian, Hungarian, Egyptian and Carniolan.

Mr. D. A. Jones, Beeton, Ont., has sent us a copy of his new Catalogue for the fall fairs. It contains 16 pages, and enumerates a full list of aparian supplies.

The Present Condition of the bees is very encouraging. The losses of bees last winter are mainly overcome now—and the colonies generally will go into winter quarters in excellent condition. Let us hope for successful wintering and a large crop of honey next year.

The Honey Show at the Michigan State Fair was not quite as magnificent as it was last year—but it was good. Mr. W. Z. Hutchinson was awarded \$150 in premiums in the various departments. This must be very gratifying to him, and speaks well of his various exhibits.

The Premium List of the Shenandoah Valley, Va., Agricultural Society is on our desk. The Fair is to be held at Winchester, Va., Oct. 13–16, 1885. There is but one premium for honey, and that is 50 cents, so there will be no display. Mr. E. C. Jordan should try a little missionary work on the directors of that benighted society.

The Query Department has become very much crowded, and so we have given a double dose this week. We have from 30 to 40 queries waiting their turn. This will explain to some of the querists why their questions are not answered earlier. It takes time to get them printed, sent out, answered, returned, and then placed in the BEE JOURNAL in the order that they were received.

California Poppy.—To see this plant (*Eschscholtzia*) in "all its glory," one must be in its native home, California, during April and May. There it may be seen in patches of many acres, radiant with its brilliancy of golden-hued flowers. Though as common as the commonest weed, it is highly cherished by the people of the Golden State. Its fragrance is not such as to make it attractive, still its rich color and its keeping fresh for many hours after being picked makes it a favorite with the many as a bouquet flower. The plant is of low growth, the tallest varieties not growing over 15 inches high. We have not heard of more than two varieties being found in its native land; but Eastern and European cultivators



California Poppy—plant and flowers.

have, by constant care and attention while experimenting with the plant, succeeded in producing several distinct varieties, but it is doubtful if any of them rival the original variety in beauty. To bee-keepers this plant is only a benefit for the abundance of pollen it yields. Though it is in its glory in April and May, it blooms every month of the year. Pollen obtained from it is of a dark orange color. The engraving, which is from Vick's *Floral Guide*, Rochester, N. Y., gives a correct representation of the flowers, but it is rather too much reduced in size; it should be more spreading and have from 30 to 40 flowers. Those who plant flowers for pollen should have the California Poppy. It is easy to cultivate. The seed may be obtained of James Vick, Rochester, N. Y.

A Drone-Trap was sent to us by Mr. E. Nutting, of Kent, O., filled with drones, caught in a short time from one of his Holy Land colonies. The drones were very fine. The trap has several new features. Not a drone can get out of the hive without getting caught in the trap, where they are imprisoned until liberated, and are completely under the control of the apiarist.

"**Don't Stop**"—that is what many write to us about their papers, when their time is nearly out. One subscriber says: "This has been a year of disaster, and it is not convenient for me to send you the money now to renew my subscription. It runs out with this month; but don't stop sending it. I will get the money to you within three months." Such letters are coming every day, and so for the present we have concluded not to stop any papers until requested to do so.

Another Suit—Bees and Grapes.—Gustav Bohn, of San Bernardino, Calif., on Sept. 14, 1885, sent the following to the Manager of the Bee-Keepers' Union:

A suit has been commenced against me in the Justice Court of this city for \$200, for damages alleged to have been done by my bees to my neighbor's grapes during 1884 and 1885. I am a member of the National Bee-Keepers' Union, and desire the aid and assistance of this National organization. I have engaged good counsel, and hope to win the case. Please inform me what assistance I may expect from the Bee-Keepers' Union?

That question is a poser! We have just completed arrangements for "a vigorous fight" over the Wisconsin suit, and have expended nearly all the money in the treasury, a little over \$230. But we will do all we can—all that our finances will permit! The great bulk of bee-keepers seem to be asleep, and the pursuit is left to care for itself. By this time the membership should have been thousands instead of hundreds! Then we could show to the enemies of the pursuit that ours were not idle words—but that they were to be "backed up" by dollars and cents as well as unbounded enthusiasm.

A Honey Pyramid, at the Fair at Ithaca, N. Y., was what the Ithaca Journal called the exhibit of Messrs. W. G. Fish and E. W. Landon, two enterprising bee-men of the county of Tompkins, N. Y. Besides an exhibit of comb foundation and machines, making it on the grounds, smokers and other implements for bee-keepers, they had honey extractors at work "turning out" honey, pure and enticing before the eyes of the multitude. The Journal adds:

In their exhibit scientific bee-culture is practically shown and illustrated in detail. Live bees are exhibited in small glass hives, and one may admire the beauty of the Italians, study the economy of the hive, reflect upon the constant industry of the "busy bee," or engage in the fascination of hunting for the queen, all without the least danger of being stung.

Three inventions, namely, the movable-comb hive, the honey extractor and the comb foundation have raised bee-culture out of the well-worn ruts of the past, placed it upon the scientific basis where it now rests, and changed it from uncertain management and guess-work to a certainty, giving complete control of the hive. No one who visits the Fair this year should fail to inspect the bee and honey exhibits.

That is the way to do it. That exhibit has, no doubt, done more good and built up a larger local trade and reputation than they could have acquired in several years.

Unite Weak Colonies, says Mrs. L. Harrison in the *Prairie Farmer*. She states her method thus:

"If two, three, or more colonies are to be united, choose the best queen, and remove all the others. The frames containing honey should be put together into one hive, and the bees put together and driven in, the surplus queens having been first removed. They will not quarrel, as they have now no home of their own, but accept the condition gratefully. Some days before uniting, the hives should be brought together, and a board or grass put in front of their entrance, so they would mark the location. A few days after the bees have been united, if any of the remaining comb contains honey, it should be uncapped and placed in the upper story, and a little opening given in the honey-board or muslin, so the bees can come up and carry the honey below. When the combs are emptied of honey, the frames should be stored away carefully for another season, when they will be worth more to their owner than money in the bank."

WITH

REPLIES by Prominent Apirists.

Uniting Nuclei and After-Swarms.

Query, No. 117.—What is the best way for doubling up, or uniting, two or more nuclei, or after-swarms, in the fall, preparatory to wintering? When is the best time to do it?—C. G. B.

By using the cage-plan which I gave for forming nuclei, on page 277 of the BEE JOURNAL for this year, and as described by me on page 344 of the BEE JOURNAL for 1884, when I was uniting nuclei. The best time is the last of this month (Sept.), or the first of next.—G. M. DOOLITTLE.

Have all the nuclei that are to be put into one hive, queenless, excepting one. Carry the combs with the adhering bees and hang them in the hive that has the queen. The best time is after a few days of cool weather, just as it begins to warm up.—W. Z. HUTCHINSON.

I unite a large number of nuclei every fall. Let the nuclei be queenless (all but one) three or four days, then just before sunset unite them—combs, bees, and all. They never fight one time in twenty. If you want to reduce the brood-nest it can be done afterwards. I usually unite them as soon as I have no use for the nuclei, and never later than the first killing frost.—G. W. DEMAREE.

It is best to unite them just as soon as surplus storing is over, if not before. I have united bees satisfactorily by taking the queen from one hive a day or so before the union, and then putting the frames together in one hive.—DR. C. C. MILLER.

Do the work as early as convenient. If your bees will not unite peaceably by mixing up the bees and combs as you place them in their permanent hive, spray them with water scented with peppermint essence.—JAMES HEDDON.

In doubling up nuclei or swarms, I wait until near evening and then unite them, without smoking or perfuming, alternating the combs. But the queen to be given them should always be caged 24 hours, or until the bees cease to "ball" the cage. If they start queen-cells, destroy them, and they will soon cease to "ball" the cage. There is always less disturbance to the bees to unite towards evening, when during the night they will get settled and go right to work in the morning.—DR. G. L. TINKER.

Bring the hives gradually together if practicable in the first place, if not, unite without so doing. I then remove the least valuable queen, and one-half the frames from one hive; I take one-half the frames from the other, and place them in a new hive interchangeably. This mixes the bees up to such an extent that they have no disposition to quarrel. The bees remaining in both hives I mix together, and then allow them to run

into the hive containing those first moved.—J. E. POND, JR.

I do it as soon after the first hard frost as the weather will permit. By moving them a few feet each day, I get the nuclei close side by side. I then smoke both thoroughly, mix the frames, and shake the bees in front. I do not think this last is often necessary. They will usually unite kindly by simply placing the frames in the hive alternately without removing the bees at all.—PROF. A. J. COOK.

Replacing Aged Queens.

Query, No. 118.—How should I proceed to replace queens that are past their useful age?—L. L. T.

Let the bees do it themselves, as they always will if there is Italian blood in them.—G. M. DOOLITTLE.

Remove them from the hive, and introduce others.—JAMES HEDDON.

Kill them, and introduce young, laying queens.—W. Z. HUTCHINSON.

Kill the queens and introduce new ones according to the methods well known, and described in all the bee-books.—PROF. A. J. COOK.

I would not replace them unless I wanted to change the breed of bees. The bees will make fewer mistakes if the matter of superseding queens is left to them, than the smartest beekeeper in the land. If I had a queen that failed to fill her combs at the right time with eggs, I would remove her and introduce another in her place.—G. W. DEMAREE.

One way is to destroy the old queen in the midst of the honey harvest, and put into the hive a frame of brood, bees, laying queen, and all, from a nucleus. If your experience is limited you can let the bees do their own superseding.—DR. C. C. MILLER.

Late in the season the best plan, and a very safe one, too, is to take out the old queen, and in nine days cut out the queen-cells, shaking the bees from the combs, so that none are overlooked, and introducing a queen by caging her, taking care before liberating her that the bees do not "ball" the cage. Another precaution is to always let the cage down among the bees.—DR. G. L. TINKER.

Remove the old queen in the forenoon of a pleasant day, and at night, after the bees have all returned home, give them a little smoke, and when they are filled with honey allow the new queen to run in at the entrance. I do not open the hive for 3 or 4 days, and have never yet made a miss of it.—J. E. POND, JR.

Prevention of Swarming.

Query, No. 119.—To-day (July 19) I have had two new colonies that have swarmed, both having commenced to work in the boxes; one was hived on June 6, and the other on June 18. Is it common for new colonies to swarm? Can it be prevented?—Madison Co., N. Y.

I have never had but one or two such cases. Any means tending to

prevent ordinary swarming can be used to prevent this.—DR. C. C. MILLER.

Yes, new colonies quite frequently swarm, especially if their queens are old or have their wings' clipped. To prevent it, use the same measures you would to prevent swarms from any colonies.—JAMES HEDDON.

In my locality early swarms are very likely to swarm again if the season continues good for some time after they are hived. You can cut out the queen-cells and return the bees with a better show of success than you can with the early swarms, because there is not so much of the honey season before you.—G. W. DEMAREE.

This is quite common with me, with very early swarms, and not easily prevented. The best way is to prevent early swarming by taking bees and brood from the strongest colonies the last of May.—G. M. DOOLITTLE.

This is not very common. It can be prevented, but that may cost more than it is worth.—PROF. A. J. COOK.

It is not very uncommon for prime swarms to swarm again, with some systems of management. Give plenty of surplus room, shade and ventilation.—W. Z. HUTCHINSON.

To both questions I answer no. Colonies of bees are liable to swarm at any time when they get strong in number, and the flowers are full of nectar.—DR. G. L. TINKER.

It is not common for new colonies to swarm, but swarms will issue when the "fit" seizes them. I do not know of any sure plan to prevent swarming. Giving plenty of room is the surest, but that will fail sometimes. The "Heddon" plan (so-called) is perhaps as good as any to prevent new colonies from swarming.—J. E. POND, JR.

Fertilization of Queens.

Query, No. 120.—Do queens of second swarms "mate" before or after they lead out the swarm?—T.

After.—JAMES HEDDON.

After, never before; sometimes when out with a swarm.—G. M. DOOLITTLE.

Usually after, but they possibly may before, under certain peculiar conditions.—PROF. A. J. COOK.

After.—W. Z. HUTCHINSON.

Perhaps before, but generally after. When they swarm before mating, the swarm often leaves when the queen takes her "wedding trip," and such swarms are usually difficult to stop. In fact it does not pay to try to detain them unless you kill the queen and return them to the mother hive.—DADANT & SON.

They mate after they are established in their new home.—G. W. DEMAREE.

After, in all cases. A second swarm issues before the young queen has had a chance to make her "wedding tour." If the second swarm from a parent colony does not issue till after the young queen "mates," it will be a

prime swarm, although not the first one issuing in point of numbers.—J. E. POND, JR.

I have never known queens to mate until after they had led out a swarm. In 3 or 4 days the bees, on some pleasant afternoon, will fly out in great numbers, when the queen may be seen to leave the hive to "mate."—DR. G. L. TINKER.

Drones and Worker Eggs.

Query, No. 121.—1. Can bees form or rear drones from eggs in worker-cells? Or can they make a drone out of a worker-egg? If they cannot, how do they know that a worker-egg will not produce a drone?

2. Are all drone eggs unfertilized? Is this accomplished by the "will" of the queen, or by the size of the cell?—T. F.

Drone eggs in worker cells produce only dwarf drones. Worker eggs never produce drones, as far as my knowledge goes, even when laid in drone cells.—G. M. DOOLITTLE.

Bees can rear drones in worker cells, and workers in drone cells; hence, the size of the cell has nothing to do with the fertilization of drone eggs.—W. Z. HUTCHINSON.

Bees can rear drones from eggs in worker cells, but the eggs will be what are called drone eggs. They cannot make a drone out of a worker egg. No one can answer the second part of the query, but it is a fact that drones when produced in worker cells are always drone capped or sealed. All drone eggs are unfertilized, and this is accomplished by the will of the queen if she is fecundated. If not, she has no choice in the matter. If T. F. will carefully read the "Dzierzon Theory," this whole matter will be made plain to him.—J. E. POND, JR.

Bees can, and sometimes do, rear drones in worker cells, but such drones are quite small, comparatively speaking. No; they cannot make a drone at all; nor can they rear a drone from a worker egg. They have no need of knowing anything. They are guided by innate force which serves them every purpose. Eggs from which drones hatch are not fertilized in the same sense, nor in the same way that worker eggs are; though some of us believe that the male-producing eggs of the mother honey-bee are fertilized by some process in nature not yet discovered.—G. W. DEMAREE.

1. Yes, they often do. 2. They never make a drone from a worker egg. I do not suppose that they do know. They probably expect a worker from every worker-cell, and usually are not disappointed. Occasionally they are fooled. Young queens often lay unimpregnated eggs—a few—in worker-cells. They have not learned their work thoroughly as yet. 2. Yes, by the will of the queen.—PROF. A. J. COOK.

1. Yes, dwarf drones. I do not know whether they could remove the fecundating matter from an egg or not. 2. I think the queen governs it by her will.—JAMES HEDDON.

Drones can be reared in worker-cells provided the drone-egg is laid in

it, but it is as impossible to make a drone out of a worker-egg as it is to make a rooster out of a hen. The drone eggs are unfertilized. The sex may be made by the queen at will, but it is more likely to be caused by the position in which she is placed when laying. Whether the queen "wills" it or not, is a theory which is not yet proved either way.—DADANT & SON.

1. No, not unless the eggs should happen to be drone eggs. Bees cannot "make" a drone from a worker egg, and I do not think they know one egg from another, except as it is found in a drone or worker-cell, but they know a drone larva from a worker larva always, as indicated by the way the cells are sealed up. 2. I am fully satisfied that the continued presence of the male elements in the queen's spermatheca does have an influence on the unfertilized eggs of the queen, as well as upon her whole career. A fully developed unfecundated queen never acts any differently from a laying worker. The fertilizing of the eggs is done by the will of the queen.—DR. G. L. TINKER.

Bees Working in Upper Stories.

Query, No. 122.—Would hanging a frame of brood and honey "up-stairs" in a simplicity hive, taken from the lower story, get the bees up and to work more quickly? I use full wired frames of foundation.—T. F. K.

Yes.—DR. C. C. MILLER.

Yes; but do not do it until the strength of the colony will admit of it.—G. M. DOOLITTLE.

Yes, undoubtedly.—DADANT & SON.

I think it does often aid materially.—PROF. A. J. COOK.

The bees will follow their brood "up-stairs" every time, but it does not appear to get them to work more quickly as to start comb-building in sections more readily, than by some other methods.—DR. G. L. TINKER.

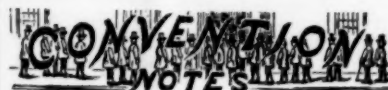
Yes, it will as a rule, unless the weather is too cold. This plan is often adopted for this purpose, but it is advisable to use a perforated-zinc honey-board or a queen-excluder of some kind, else she will go "up-stairs" and deposit her eggs there, and thus injure the surplus honey.—J. E. POND, JR.

Yes, it would in many cases; but I consider it too much manipulation for the advantage gained, if it is an advantage. Usually, when the bees are strong in numbers, and honey is coming in, they will store it in the surplus apartment without any coaxing, unless there is room to store it in the brood-nest.—W. Z. HUTCHINSON.

Bees instinctively adhere to the brood, hence the theory that the presence of brood will set the bees at work in the surplus department. If there was any difficulty in getting bees to work in the surplus department when there is anything for them to do, it would be worth while to talk about a remedy; but if there is honey in the flowers, and the brood-nest is full of brood, or brood and honey, you

would find it a difficult matter to keep the bees out of the surplus department if you wanted to exclude them.—G. W. DEMAREE.

That is what we are told by some apiarists who manage in such a way as to need some inducement to bring the bees above. With good average queens, a good strain of bees, proper size and shape of brood-chamber, right communications to the surplus receptacles, bees will, without any artificial inducement, begin in the surplus department just as soon as the secretion of nectar will yield any surplus.—JAMES HEDDON.



The Maryland, Virginia and West Virginia Bee-Keepers' Association will meet in the Court House at Hagerstown, Md., on Wednesday, Oct. 21, 1885, at 10 a. m. D. A. PIKE, Pres.

The Southern Illinois Bee-Keepers' Association will hold a meeting in Duquoin, Ills., on Thursday, Oct. 1, 1885, at 10 a. m. All are invited. F. H. KENNEDY, Sec.

The Union Bee-Keepers' Association of Western Iowa will meet on Friday, Oct. 2, 1885, at Dexter, Iowa. All bee-keepers are cordially invited to be present. M. E. DARBY, Sec.

The Progressive Bee-Keepers' Association, of Western Illinois, will meet at Macomb, Ills., on Thursday, Oct. 15, 1885. Let everybody come and have an enjoyable time. Good speakers are expected. J. G. NORTON, Sec.

The New Jersey and Eastern Bee-Keepers' Association having accepted an invitation to meet with the Mercer County Board of Agriculture, of Trenton, N. J., will hold their semi-annual convention in the Grand Jury Room of the Court House at Trenton, N. J., on Thursday and Friday, Nov. 5 and 6, 1885, at 10 a. m. A full attendance of the members is requested. To all persons interested in our vocation, we extend a cordial welcome. The committee of arrangements have secured hotel accommodations at reduced rates. WM. B. TREADWELL, Sec.

The Western Bee-Keepers' Association will hold its fourth annual meeting in Independence, Mo., on Thursday and Friday, Oct. 15 and 16, 1885. The Association will endeavor to make this the most interesting meeting yet held, and will spare no pains within its means to make it valuable to all. Several of our most prominent bee-keepers have signified their intention to be present. C. M. CRANDALL, Sec.

The 4th semi-annual meeting of the Wabash County Bee-Keepers' Association will be held at North Manchester, Ind., on Oct. 10, 1885, in the G. A. R. Hall, Union Block. First session at 10 a. m. All bee-keepers are cordially invited to be present. J. J. MARTIN, Sec.

The Central Michigan Bee-Keepers' Association will meet in the Pioneers' Rooms in the State Capitol, at Lansing, Mich., at 9 a. m., on Nov. 12, 1885. All who have bees or are interested in bee-culture, are invited to attend. E. N. WOOD, Sec.

CORRESPONDENCE

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark \odot indicates that the apiarist is located near the centre of the State named: δ north of the centre; ϕ south; \oplus east; \ominus west; and this \nearrow northeast; \nwarrow northwest; \searrow southeast; and \swarrow southwest of the centre of the State mentioned.

For the American Bee Journal.

Observations upon Drones.

REV. L. L. LANGSTROTH.

Bevan says that the drone hatches on the 24th or 25th day after the egg is laid. I knew of nothing more definite on this point.

To get more precisely the facts, on the 16th day of last July, a drone-comb was put, at 7 a. m., centrally in a strong colony, which had been fed for several days, as the drones were being expelled from many hives. At 9 a. m. the queen was found on that comb, having laid three eggs. She had just begun laying. At 9 a. m., on July 17, it was removed to a strong colony, without queen, eggs or larvæ. On July 27, many cells were capped, and on July 28, at 2 p. m., some 200 were capped, many eggs having, for some cause, disappeared. On Aug. 9, none had hatched. On Aug. 10 examinations were made every hour. At 5:30 p. m. none had crawled out; at 6:30 two had hatched, and a third was hatching. If these drones came from the first eggs laid, they took about 25 days and 8½ hours to develop.

At 6 a. m., on Aug. 11, many more had hatched, and at 6 a. m., on Aug. 12, all but 17 had hatched. At 6:30 p. m. all but 2 had hatched, and at 6:30 a. m. of Aug. 13, the last one was found with the cap off, trying to crawl out; it was strong and perfect. Now if the egg producing this drone was laid just before the comb was removed, then it took nearly 27 days to mature.

During the whole time of these observations, the weather was of the most favorable kind—the thermometer ranging nearly every day above 80° Fahr., and being only once as low as 62°. The colony was kept in good heart by daily feeding, and I can think of nothing which could have retarded in the least the development of these drones, unless possibly the fact that from so many of the eggs having disappeared, they were not as compact in the comb as they otherwise would have been. In this observation, although there could not possibly have been more than 24 hours difference between the laying of the first and the last egg, there was about two days and a half between the hatching of the first and the last drone.

It is quite interesting to watch the different actions of just hatched workers and drones. The worker, true to her name and office, begins to crawl over the combs as if to feel her legs, stops occasionally to clean herself up, and before long helps herself to honey from an open cell. The drone, on the contrary, is a born dependent. The first act is to touch the nearest worker he can reach with his flexible antennæ, and, begging to be fed, he is at once supplied with honey disgorged from the proboscis of his attentive nurse. And so he goes on all his life, seeming to prefer to be fed, although perfectly able, if needs be, to help himself.

A very bad name has always been given the drone. Virgil has his fling at him, stigmatizing him as having no proper office in the economy of the hive—seeking only to devour the stores which he had no share in collecting. I wonder what the poet thought he was made for! or as he says that the bees collected their young from the flowers, being too chaste to breed them, what motive he could have thought they had to gather in such useless consumers! And yet without any special pleading how much can be said in his defense. It is only too evident that his proboscis is too short to suck honey from the flowers; that his legs have no pollen baskets; and that he can secrete no wax. Great as his bulk is, he has no sting, and can do nothing for the defense of the commonwealth; but then, without him that commonwealth could have no existence. The sole object of his life seems to be, at the proper time, to fertilize the young queen—and this he is always ready to do. Now why should we blame any creature which fulfills the special object of its creation? And yet I fear that in spite of all that can so justly be said in his favor, our poor drone will always be cited as an incorrigibly idle reprobate, who meets with only his just deserts when after a life of pleasure he is killed without mercy by the industrious workers. He will always be known as Shakespeare's "lazy, yawning drone."

Oxford, ϕ Ohio.

For the American Bee Journal.

That "Hint," the Season, etc.

JNO. A. EMISON.

The most timely editorial hint to correspondents, on page 547, needs to be republished. It is as follows: "Do not write any more on subjects so stale and 'worn out' as are 'pollen,' 'diarrhea,' and the like." "So be it," saith one of the attentive and interested readers of the BEE JOURNAL.

At the date of my last report, on page 347, we had a most flattering prospect for a very heavy yield of honey. Though two weeks later than usual, the bloom of the horse-mint was most profuse, and thousands of acres of it surrounded my apiary, but alas! just as my bees began their busy work, we had a cold, wet spell of two weeks duration. The colonies in

my apiary were much weaker the last of May than they were the first, and with their stores consumed. However, when the warm, spring-like weather came again they went to work with a will. Their time of work on the mint was shortened by a drouth following the wet spell.

I have extracted some 1,600 pounds of honey, and have taken 200 pounds of comb honey. I work my apiary for extracted honey alone. I will have more to extract soon. I have increased my number of colonies to 103—all in fine condition.

The position assumed by one of the correspondents of the BEE JOURNAL, in one of the May numbers, although running contrary to the seemingly universal theory as taught in all my bee-books, I accept it as most plausible. The position assumed was, that the queen was not fertilized for life, but subject to re-mating. This is not the exact language, but the substance of that used by the correspondent. I have witnessed time and again the flight of mature queens. I was rather astonished, for I had been taught that the queen never leaves the hive except for fertilization and swarming, and here were fully developed queens leaving the hive. Why? I now have colonies deeply Italianized that were in the spring as black as night. Were these queens re-mating or superseding?

I am much interested in the discussion of deep and shallow frames. From my short experience I am inclined to the deep frames, especially in the brood-chamber. Why? Because I find that my colonies in hives framed with the Quinby frame are much stronger than those with the Langstroth, and the yield of honey is much greater. With me that is the test of superiority.

Mission Valley, ϕ Texas.

For the American Bee Journal.

An Electric Entrance-Regulator.

FRED C. SMITH.

During the time that I have been keeping bees, I have often thought that if I could keep them during the winter on the summer stands, below a certain temperature, I would not need to fear loss of bees from starvation with plenty of honey in the hive, or from bee-diarrhea. In the summer of 1884, I completed my instrument, and fixed it to a hive having eight frames, not making any choice whatever, for it was the experiment I was after, and it does me good to think how well this colony came through the last terrible winter, while the rest on all sides suffered. I lost 3 colonies by starvation with plenty of honey in their hives.

This instrument is nothing more than a thermometer with an iron wire blown into the bulb, reaching through the glass so that it will come in contact with the mercury; and a longer iron wire is to be used to reach through an air-tight stopper in the top of the tube. The thermometer is to be mounted upon a slat of wood

painted white, and the scale of the thermometer copied on the slat of wood so that it can be read from the outside of the hive without disturbing the bees. The wire reaching through the top of the tube should be long enough so that when moved up or down both ends will have to point to the same degree. If the lower end is even with, say 50, the upper end of the wire will have to be even with 50 on the slat on the outside of the hive.

This instrument can be used for finding out the correct temperature inside of the hive, or for a ventilator both for out-door or cellar wintering, by connecting a battery of two cells of Le Clanche batteries with the wires of the thermometer. The wire from the positive pole should be connected with a binding post of an electric bell, and a second wire connected with the other post from there to the long wire of the thermometer. The lower wire is connected with the negative pole of the battery, and the upper wire is to be drawn up and set even with any degree one wishes. Whenever the mercury reaches that degree at which the wire is set it connects with the wire in the tube, and the circuit is closed, and the bell will ring. By this means the correct temperature in the hive is secured by drawing the wire up or down; this can be done without disturbing the bees.

To keep the inside of the hive below a certain degree, I used an electromagnet instead of the bell, the armature of this magnet being placed so that it would regulate the size of the entrance, their being a sheet-iron shutter 7 inches long and $\frac{5}{8}$ of an inch wide hinged to the hive and connecting with the armature of the magnet, so as to work freely. The entrance to this hive was 12 inches by $\frac{3}{8}$, and I set the wire at 70 on the slat, and left it that way all winter until March 1, when I raised it to 95, and removed it from the hive on April 9. Now, at 70 above, this shutter would open two or three times per day, and every time it opened the entrance would be $\frac{3}{8} \times 12$ inches, which would remain open from 10 to 15 minutes, when the mercury would leave the iron wire, the magnet would become demagnetized, and the armature with the shutter would drop back again, leaving an entrance $\frac{3}{8} \times 5$ inches; and so on every time the mercury would reach 70.

I do not call this upward ventilation, for above the frames I had good, warm packing, and there could have been no draft through the hive. This colony was very quiet during the winter, and had it not been for seeing the iron shutter moving, I would have been very uneasy about them. I would often look into the entrance to see if dead bees would get clogged behind the shutter, but I found none, and in fact I found only 49 dead bees on the bottom-board by March 1. My opinion is, if this entrance-regulator had not been attached to this hive the bees would have suffered with the rest of the bees in the apiary. This colony surely clustered better than did the others, for it never got warm

enough for them to spread over the combs. This, I think, was what kept them so quiet, and accounts for the small loss of bees.

The cause of so many dead bees being found on the bottom-board was mainly brought about by the cluster spreading during a rise of temperature in the hive, and if the temperature should drop very suddenly, as is frequently the case, then there will be plenty of chilled and dead bees on the bottom-board. Some say they are old bees, and their time of life is up. I find this all wrong, to some extent, for I have often scraped bees from the bottom-boards which showed no sign of life; but upon taking them into a warm room they would revive. This proves that they chill and drop to the bottom-board and die while there; but the 49 dead bees I found in this hive were actually old bees. Why did I not find young bees among them? and why so few dead ones? They must have clustered well, and when they moved they all moved in a body and kept within the cluster, and could not have spread much, or I would have found more on the bottom-board.

I will again try this experiment the coming winter, and report the result in due time.

Aurora, O. Ind.

For the American Bee Journal.

Discussions, Black Bees, etc.

15—C. A. CAMP, (31—46).

It is perhaps unfortunate that most apian discussions assume personal mention, as "his" hive, book, feeder, frame, and last, and worst of all, "his" theory.

One of the last subjects for discussion is the "contraction system" as practiced by Messrs. Doolittle and Heddon. It is, no doubt, detrimental to any colony so treated, because the bees are not allowed to go as Nature taught them. A colony confined on 4 to 6 frames, and forced to put their honey above or at the sides, and not allowed sufficient breeding-space, comes out at the end of the honey season a small colony, not fit for the winter—and is like cramped Chinese feet—all out of shape. Two or three such colonies must be united to make one of good size, as regards numbers; and I venture to assert that each individual bee is cramped in its vitality to withstand a severe winter.

Also, these colonies must be fed, and they are set to work near winter, or late in the fall, to store for themselves, and some of these sugar-fed colonies have much of their stores uncapped. After the honey harvest, bees should rest, and save their strength for the preparations of the winter. Mr. A. I. Root tried to compel one colony to do the storing for a whole apiary, the frames being removed when filled, and their places supplied with others, but the project failed. The reader is left to draw his own conclusions.

Now, how successful are Messrs. Doolittle and Heddon in wintering

their bees? In 1880 Mr. Doolittle had 112 colonies, and last spring he had only 50 colonies left, having sold some. The other advocate of contraction, is said to have expended \$700 for bees with which to "re-stock his apiary," last spring.

Deep and shallow frames must always be talked about. Who are among the successful apiarists of the world? Capt. E. J. Hetherington of New York, is one of them. In one year he is said to have sold \$25,000 worth of honey. Bee-keepers, Mr. Hetherington's frames are deep ones, being $10\frac{1}{2}$ inches in depth. Mr. Chas. Dadant says that bees winter better on deep frames than on shallow ones. We should follow those who are successful, if we follow any at all.

Another point is to prove the German bees the best. Among the advertisements in the back volumes of the BEE JOURNAL, Mr. Johnson charged \$1.50 and upward for Italian queens, and Mr. J. sold many bees; but finally he changed his base and began Germanizing his bees, and he has at the present time over 150 colonies of good honey-gatherers, and says that producing honey is more profitable than queen-rearing. Still Mr. J. keeps a colony or two of the Holy Lands and Cyprians to test them by the side of the German bees. He also has a \$5 queen from a well-known apiarist to see how her colony would perform, and the end of the season gives this report: "Black bees are a long ways ahead." A prominent bee-keeper says: "It seems to me that the black bees winter the best."

Painesville, O. Ohio.

The Ohio State Convention.

The bee-keepers of Ohio met at the State Fair Grounds, and assembled at 9:30 a. m. on Thursday, Sept. 3, 1885, in the room over the Apian Hall. Mr. A. I. Root, President, called the meeting to order.

Dr. Besse introduced the subject of "Bees Trespassing."

He cited the case of a Wisconsin farmer who had brought suit against a bee-keeper whose bees, he claimed, trespassed on his clover fields. The Doctor said: "I do not think that bees ever trespass. I think it preposterous for a man to sue for bees' trespassing. Bees are an advantage to all farmers, by assisting nature in the fertilization of flowers."

C. E. Jones: I never had any complaint, and I think them a blessing.

A. I. Root: In my opinion, nothing can be made out of the case.

Secretary: In our town a neighbor complains of bees trespassing in the kitchens, and of eating their grapes.

A. Benedict: Some people think that bees puncture grapes; but this is a mistake. They work on grapes after wasps and other insects having strong mandibles, puncture them. They never injure sound fruit.

President: I have several hundred grape-vines right over my hives, and the grapes are never injured by the bees.

Dr. Besse: Bees will never injure the tender Delaware grape, unless the skin is first ruptured. Bees are a benefit to corn-growers.

A. Benedict: After grapes are bursted they soon rot any way, and might the bees not as well get the sweet from them as to let it waste? Bees are a benefit to all fruit-growers.

Dr. Besse: Fruit-growers ought to be thankful for the bees. If there were no bees there would be little fruit.

President: A Massachusetts fruitman once compelled a bee-keeper to remove, because he claimed that his bees injured his fruit. A trial of several seasons without the bees was a failure, and the bee-keeper was prevailed upon to come back.

ARE CIDER-MILLS INJURIOUS TO BEES?

A. Benedict: I am satisfied that cider-mills are injurious to bees.

C. E. Jones: I lost 73 colonies, which had plenty of clover honey; the cider that they carried in killed them. I had better have spent \$100 in screening the mill.

President: As a means of harmony, I suggest that bee-keepers furnish some kind of screen to keep out the bees. We furnished one for a neighbor cider-maker which kept out flies, etc., as well as bees, and cost only \$2.

It was decided that the President appoint a committee to see that a suitable building be erected by the Agricultural Society of the State, on the new Fair Ground, for the use of bee-keepers, as a place of exhibition and meeting. Dr. Besse, Delaware, chairman; C. E. Jones, Delaware, and Aaron Benedict, Bennington, were appointed a committee.

It was next proposed to have the Ohio Agricultural College take up apiculture as a branch of study. The President said he thought the college ought to take such measures, and that it would elevate bee-culture in our State. It was decided that a committee be appointed to confer with the directors of the Agricultural College, to have a station of bee-culture established there.

"What is to be the object of this department?"

Dr. Besse: The object is to test for best bees, best methods of management, to report from time to time, and to educate students in bee-culture.

The committee appointed were Dr. Besse, chairman; J. W. Newlove, W. Oldroyd, Dr. Mason, A. I. Root, Chas. Muth, Dan White.

PROPER SIZE OF COLONY TO WINTER.

Dr. Besse: I think that too many bees do not winter as well as a small colony.

A. Benedict: I cannot quite agree with Dr. Besse. I want a large colony of bees; a small one will eat much more honey in proportion to its size than a large one, to keep up animal heat.

C. E. Jones: My experience in this: Get a colony in as nearly a natural condition as possible—large, and plenty of honey.

"How many bees are necessary for such a colony?"

Dr. Besse: About 3 pounds.

Mrs. Culp: I do not care for such large colonies. I do not stimulate them in the fall, for I am satisfied that small colonies are the best. I winter my bees in chaff hives, and stimulate them in the spring.

Dr. Besse: Winter half the bees, and extract and sell half the honey.

President: Dr. Besse and Mrs. Culp may be right, but I think there ought to be caution used here in the use of terms. A large colony will sometimes contract in cool weather to the size of a popcorn ball, and winter well.

Dr. Besse: If you stimulate bees in the fall, feed early enough so that young bees can have two or three flights before they cluster for winter.

WHEN TO FEED BEES FOR WINTER.

Dr. Besse: Any time—the sooner the better.

President: I have the best results by feeding gradually. Feed, say $\frac{1}{2}$ of a pound every night, and during September if possible.

Mrs. Culp: I think my plan of putting away full combs, and giving them to the bees in the fall, is the best plan.

Dr. Besse: We should throw out the uncapped honey before putting bees into winter quarters.

"How many combs of honey are necessary to winter a colony?"

Dr. Besse: Twenty-five pounds of honey.

President: Five full combs.

BEST HONEY LOCALITIES IN THE UNITED STATES.

Central Ohio, California in a good season, Florida, and the basswood locality of Wisconsin and Michigan were named.

Dr. Besse: Ohio extracted and comb honey, taken by me to the Exposition at New Orleans, took the first premium.

A Stranger: Hardin county is as good as any county in the State, for honey.

Mrs. Culp: Franklin county is a good locality. I tested one colony, and took 252 pounds of extracted honey.

Adjourned until 2 p. m.

AFTERNOON SESSION.

The subject of "Moving bees during the working season," was taken up.

Dr. Besse: Move 5 or 6 colonies every evening. After the bees are all in the hives, place the hives far enough apart so as to put others between them when moved the next evening. Place a board, or three or four sticks of stove-wood, in front of the colony moved. I moved 100 colonies 250 or 300 feet, and very few bees, if any, went back, and they were caught in nuclei hives on the old stands. I would advise moving the strongest colonies first, then the returning bees would re-enforce the weaker ones left.

A. Benedict: When putting bees out of the cellar, be sure to put the hive on the old stand.

Dr. Gordon: I have no trouble in moving bees short distances, and I do not think it makes any difference

whether we put the bees on the old stand when taken out of the cellar or not.

Mrs. Culp: I put my bees further apart last fall, and saw no bad result. I was trying to see if I could make them do as I wanted, and I did.

Dr. Gordon: I winter my bees out-of-doors, with corn-fodder placed around them, leaving an opening on the south side, so the bees can fly on warm days. I move them together and set them on scantling two tiers high.

Mr. Morris: I wintered my bees successfully in a bee-house for three years. I never put them out-of-doors for a flight when they are quiet. The house has a brick foundation, double wall, 1 foot of space filled with sawdust, and 1 foot of sawdust on top, with cement floor.

President: In regard to cellar-wintering, there is a diversity of opinion and experience. Chaff-hives seem to be the most practicable, with the variable winter weather we have in Ohio, and public opinion seems to be getting in favor of them.

A. Benedict: Bees need more ventilation in winter than in summer.

President: My practice is to leave the entrance open full width all winter.

Mr. Goodrich: I prefer cellar wintering, and I keep the temperature of the cellar as near the freezing point as possible, and think it best.

Dan White: I think the cellar, with an experienced bee-keeper, the best place to winter bees, although I winter my bees in chaff hives out-of-doors. I lost half of my bees last winter.

C. E. Jones: The cellar is a good place to winter bees, if properly prepared.

President: The cause of last winter's losses was poor stores and severe weather.

SPRING DWINDLING.

Mr. Morris: Our spring losses were caused by there being too few young bees when they were put into winter quarters.

Dan White: The cure is, plenty of young bees.

President: There is some mystery about "spring dwindling." A colony "dwindling" seems to get discouraged, and will not even gather pollen. I am sometimes inclined to think it a disease of some kind, and may be contagious, affecting whole apiaries, and missing others in the same locality. A disastrous winter is a benefit, in one way, by making a demand for bees and honey.

THE USE OF SEPARATORS.

Dr. Besse: I do not use separators, and I think it is better without them.

Secretary: I have abandoned them. To get the nicest and straightest combs, use $1\frac{1}{2}$ -inch sections; such a section, $4\frac{1}{2} \times 4\frac{1}{2}$, will hold a pound, and you can have as many rows of sections as you have brood-frames—the frames being spaced $1\frac{1}{2}$ inches. I reverse the sections.

A. Benedict: I use $1\frac{1}{2}$ -inch sections with no separators.

It seemed to be generally understood that all could dispense with separators by using narrower sections. Adjourned to meet in Sec. Chamberlain's office, in the State House, at 7 p. m.

EVENING SESSION.

The question was asked, "Which is preferable, natural swarming, or dividing colonies?"

Dr. Besse: I would rather divide three colonies than have one natural swarm. By division one has complete control of the bees. I rear early queens from the best stock, and get early drones by inserting a drone-comb in the centre of a full colony. When a colony indicates swarming, I divide it, putting the old queen on the new stand, and the new queen on the old stand.

C. E. Jones: I am in favor of natural swarming. I also reared early queens. I make two swarms out of a large one. I think it more natural for them to swarm.

Secretary: I let my bees swarm naturally, or I divide them, according to the circumstances and conditions of a colony at the time. No general rule can be laid down. It may be best to divide one, and best to leave another to swarm. One must learn to determine by experience. I clip my queens' wings.

Mr. Pierson: I prefer natural swarms. I also clip my queens' wings.

President: Where you desire increase, divide; if you wish honey and no increase, let them swarm if you cannot help it.

Wm. Oldroyd described how he took a swarm out of a very high tree, which led to a discussion on hiving swarms.

Mr. Benedict: I would smoke a swarm down from a high limb by tying burning rags to a piece of iron fastened to a long pole, or I would use a swarming-box, which is the most natural. I divide by the "drumming" process. The bees thus swarmed are filled with honey; and as a swarm takes about 6 pounds of honey with them, this gives them a start. I put the old queen on the new stand, and run the new queen in the other part. In 15 days I can drum them again. By putting in the new queen, I always have the hive full of bees.

Dr. Besse: To have a high swarm, I would shake the bees off on a pole, to which a caged queen is fastened.

C. E. Jones: In swarming time I watch my bees closely. I can tell within 10 minutes of the time when a swarm is going to come out. Bees generally alight low. I take the swarms from a limb in a swarming-basket with a spring lid. I generally catch swarms in a basket just as they are coming out. If two or three swarms alight together, dump them on a sheet, catch the queens, and divide them equally, as nearly as possible.

A. Benedict: I separate my swarms with a smoke-pole, holding it near the swarm already settled, which will prevent others from settling.

President: I used to keep a caged queen to catch swarms, as stated by Dr. Besse.

Secretary: Mr. Ed. Miller, a neighbor bee-man, who is a carpenter by trade, and who is away from home during the day, clips his queens' wings, and during the swarming season sticks in the ground a stout bush, with some branches on, a few feet from the front of each hive. When a swarm comes out his "better half" catches the queen, cages her, and fastens the cage in the bush. The bees settle on the bush, and at noon, or in the evening—after work—Mr. M. hives them.

Adjourned to meet at the Fair Ground the next morning at 9 a. m.

FRIDAY MORNING SESSION.

In the absence of the President, Mr. Benedict acted as chairman;

GETTING THE MOST HONEY.

Mrs. Culp: I get more than twice as much extracted honey as comb honey by putting in empty frames.

Secretary: Last season I had a large number of sections filled with empty comb, and I believe it was due to this fact, that I had my good yield of comb honey this season. I think if we can always manage so as to get the sections filled with comb we can get as much comb as extracted honey.

Mr. Benedict: I advise beginners to go slow in extracting, and learn the business, or they may produce bad results, and get discouraged. I use a movable-bottom hive, and tier up in extracting. If the colony swarms, I hive it on foundation under the old colony, placing a wire cloth between the two for a day or two. The queen soon begins to occupy the lower story, and as the bees hatch out above, the honey is stored in the frames. By this method I get a large body of bees at work in a single hive. In working for comb honey, I use the same method of keeping my colonies strong by hiving back the swarms. If I hive swarms by themselves, I take a section-rack from the old hive and put it on a new one.

Mrs. Culp: My practice is similar to that described by Mr. Benedict.

"How soon is it advisable to extract after putting the swarms back?"
Ans.—In two or three days, or as often as necessary—whenever the honey is partly capped.

Dr. Besse: This, in my experience, will not work well. If you extract the next day, the queen will go up and occupy the frames, and the bees will build drone-comb below. I have no particular method of working for extracted honey. I usually extract from the brood-chamber as soon as the queen gets crowded. I tier up my hives two or three stories high, and always let the bees cap about two-thirds of the honey before extracting. Bees work downward. I put an empty hive under the full one.

A. Benedict: In tiering up section-cases, always put an empty one beneath a full one.

The convention then adjourned to meet sometime in January, 1886.

G. F. WILLIAMS, Sec. pro tem.

For the American Bee Journal.

Bee-Keeping in E. Pennsylvania.

C. G. BEITEL.

On Sept. 15, the Farmers' and Mechanics' Institute Fair opened at Easton, Pennsylvania, and continued four days, and for the first time in the history of old Northampton county, there was a display of *real live bees*. Mr. John Maddock, of Glendon, a very enthusiastic amateur bee-keeper, exhibited a colony on six frames, the hive being glassed on both sides, and it seemed to be the greatest object of wonder at the Fair. In connection with it, he also showed honey in one and two-pound sections and in frames, hives, foundation, extractor, and in fact all the paraphernalia of bee-keeping. Mr. Maddock deserves great praise for his effort, especially as it was voluntary, unexpected, and without the offer of any premium.

Northampton county is one of the oldest in the old Commonwealth of Pennsylvania, having been organized March 11, 1752, and which is one of the most forward in manufactures, boasting between 30 and 40 iron blast-furnaces alone, and is up to the times in agriculture and almost everything, yet is not as far advanced in bee-culture as many of the counties in the Western States. It is true that bees have been kept here for a hundred years and upwards, but of all the bee-keepers in the county, perhaps not over a dozen have ever had a frame hive—a large number never saw one.

The country is covered by a network of railroads, and I frequently travel on them, and I am always on the lookout for bees; only a few days ago I noticed two apiaries under sheds, each containing about 25 colonies, in the one they were in box-hives, and the others were without exception in straw skeps, and reminded me of the plate and illustrations accompanying *Riem's Bienen-zeucht*, published in 1795. I hear of many who will "brimstone" a large number of colonies this fall.

From the foregoing it must not, however, be inferred that utter darkness reigns among us, as the display of Mr. Maddock, above mentioned, proves; besides there are a number of intelligent bee-men in our midst, foremost of whom is Mr. William Christ, of Nazareth, now 75 years of age. He commenced bee-keeping when but 12 years old, with one colony, and for 63 years has never been out of bees; he has had as high as 130 colonies, and often less than 20; his present number is some 60.

Mr. C. has always kept up to the times, keeping himself posted by the periodicals and works on bee-culture as they appeared. When the frame hive was invented he adopted it; and when the Italian bee was introduced he was one of the first to get it. He perceived the advantages of comb foundation and the extractor, and was not slow to adopt them.

Mr. Christ is perhaps one of the oldest bee-keepers in the land, and while he is modest and unassuming in his ways, yet the novice who ap-

plies to him for information, is always liberally rewarded.

I must also mention Mr. J. Johnson, of Martin's Creek, who has about 100 colonies, and annually markets a large amount of surplus honey.

Easton, O. Pa.

American Agriculturist.

Bee-Notes for October.

L. C. ROOT.

During the present month all colonies should be well protected from the cold. All openings for ventilation should be closed, and the entrance to each hive contracted. If care is used in this respect, breeding may be continued much later, which is extremely desirable. Surplus combs, which have been used for extracting, should be removed, and general preparations made for winter. If bees are to be wintered in-doors, it is all important that the room be clean and sweet, and well prepared for the bees. Many who propose to build, or arrange a new room for this purpose, neglect doing so until too late in the season. If a wall is to be laid, or plastering done, or even green lumber is to be used, the work should be done early, so that all may become thoroughly dry. Facilities for thoroughly ventilating a wintering room should be supplied.

Some do not have facilities for wintering bees in-doors, and other persons advocate wintering out-of-doors, in preference to in-doors. While I strongly advocate wintering in the house, I am aware that it is better to winter out-of-doors under favorable circumstances than in-doors under unfavorable conditions.

As to the needs for out-of-door wintering: It is well known that bees do not winter so well upon the summer stands, as they formerly did. The cause of this, I believe to be, that the country being so thoroughly cleared of its forests, the winter winds are more cold and searching. This being so, we must resort to some means of giving our hives protection. First, then, it is important to select as sheltered a place as possible to set the hives. Next, it is generally agreed that some kind of packing is necessary.

Last winter I made some experiments in out-of-door wintering, the results of which were of value to me. The outer cases of my hives were large enough to allow about 4 inches of packing on all sides of the brood-combs, and 6 inches on top. I used both chaff and dry sawdust for packing, and both proved successful. The hives were tipped slightly to the front, so that the dead bees were easily removed. The brood-combs were raised about an inch from the bottom-board, so that room was afforded for the dead bees to drop below the frames. A large entrance-stick, to fill an entrance one inch deep and as long as the entire front of the hive, was supplied, with a small opening made in the centre of it. This entrance-stick could be taken out to remove the

dead bees when necessary, and replaced to protect the bees from cold. Next, and most important of all, the hives were surrounded with a perfectly tight enclosure. This I consider of extreme importance.

Experience has proven that bees can stand extreme cold weather, if not subject to drafts of cold air. Some of my experiments, which have brought me to those conclusions, have been dearly bought, and I urge those who have not had experience, to consider them well.

Mohawk, N. Y.

For the American Bee Journal.

The Ontario Convention.

BY OUR OWN CORRESPONDENT.

The adjourned meeting of the Ontario Bee-Keepers' Society was held in the City Hall at Toronto, on Tuesday evening, Sept. 15, President Thom being in the chair. After the transaction of some routine business, the President called the attention of the convention to some instances of disease and mortality among bees which he had noticed about the time bass-wood bloom had commenced. He had his theory about the cause, but before stating it he wished to learn if any other apiaries had been similarly affected, and whether any of the members had any explanation to suggest.

Mr. D. A. Jones said that his attention had been called to the matter by Dr. Thom. He was of the opinion that the trouble resulted from Paris-green used to poison the potato bug. It had but slightly affected his apiaries, and he believed this was owing to the fact that Paris-green was generally used in his locality mixed with flour or fine meal of some sort. In this dry form bees were not so likely to take it up as when it was mixed with water.

Mr. W. F. Clarke said that he had noticed the same phenomenon as had Dr. Thom, and had been much perplexed by it. The Paris-green theory furnished the first light he had obtained on the subject.

Dr. Thom said that he concurred with Mr. Jones, and had been led to that view from being a druggist as well as a physician. The trouble began just after his first sales of the poison. Again, when a second application of the poison came to be made, he noticed the same phenomenon. In his locality the poison was generally used mixed with water.

Mr. Jones remarked that it was only fair to say that the Paris-green solution of the trouble was not original with him, it having been suggested to him by Dr. Thom, in a letter, and he had no doubt that this was a true solution of the mystery.

A member inquired, "What is the best method of uniting weak colonies in the fall? and should the queen be caged?"

Mr. D. A. Jones replied thus: If you have more than one apiary, take weak colonies from one locality to the other, place the colonies to be united side by side, shake off all the bees into

a fresh hive without combs; they will then unite peaceably. Bees fight for their homes, and in the absence of combs are not disposed to quarrel. After they settle down, combs can be given them. To add a small number of bees to a larger number without the precaution stated was to insure the slaughter of the few by the many. They would be killed and carried out almost as fast as one can put them in. If you have a valuable queen it is well to cage her for 24 hours. This fall he had 100 to 150 nuclei, and he united them to other colonies in the way described, without trouble or loss.

Mr. R. McKnight preferred to stimulate breeding and build up weak colonies to self-support. Every one, if wintered safely, meant a strong and profitable colony next year.

Mr. Clarke exhibited a model of his hibernating bee-stand, which the members examined individually, quietly passing it around while the discussions and business were going on.

The following officers were elected for the ensuing year: President, S. T. Pettit, Belmont; 1st Vice-President, Allen Pringle, Selby; 2d Vice-President, Mrs. McKechnie, Angus; (This lady has personally looked after 160 colonies during the past season.) Secretary-Treasurer, Wm. Couse, Meadowvale. The following executive committee was appointed: Messrs. D. A. Jones, Jacob Spence, S. Corneil, Dr. Thom, and R. McKnight.

A resolution was passed empowering the Secretary to grant certificates of delegation to any member who might be able to attend the forthcoming annual meeting of the North American Bee-Keepers' Society at Detroit, Mich., on Dec. 8, 1885.

The convention then adjourned until next year.

For the American Bee Journal.

Signs in Queen-Rearing.

OSCAR F. BLED SOE.

System is all important in the apiary, and the more perfectly it permeates the operations of the bee-keeper the more capable is he of large success. One of the fascinations of bee-culture is its capacity of great expansion under one master mind. But an indispensable condition to large results is perfect system, and this is especially required in that most difficult branch of bee-culture—the rearing of fine queens. As the hives and nuclei employed in this branch have to be examined often, it is important for the queen-breeder, by the use of slates and signs, to be able to know at a glance the exact condition of the hive or nucleus inside, so that he may waste no labor or time, and may not be compelled to perform any operation not absolutely necessary.

The use of small slates is essential, and they must always be marked with a lead-pencil so that the rains may not wash out the marks. But he must not be compelled to look at the slates whenever he wants to know the

condition of a nucleus. For instance, suppose a queen-breeder has several hundred nuclei and a large number of hives for surplus honey, how could he afford to be compelled to look at the slates, especially as some of the nuclei have to be manipulated every day. He must have in addition certain signs so that he may know at a glance in his daily rounds which to touch.

In order to facilitate my own operations, I have devised for my own use certain signs by the use of half-bricks and small bats. Each nucleus has a slate on top of its hive with dates, short words, and letters, showing the condition inside; as, for example, when a queen was taken for shipment, when a cell was given (whether artificial or natural), from what breeding-queen (I name each of my breeding queens, as queen Florence, Perfection, Daisy, etc.), and when the cell was hatched. I make these combinations with half-bricks and bats:

1. A half-brick on top of a hive, and a slate by it, denotes that the colony has just received a queen-cell.

2. A half-brick, and a slate on top of it, denotes that a queen-cell has hatched; if O. K. is on the slate it means that I have seen the virgin queen; if I. O. K. is on the slate it means that I have not seen the virgin queen, but that I think from the appearance of the queen-cell and absence of cells she is all right.

3. A half-brick, and a slate on top, and a small bat on top of the slate, denotes that the colony has a young laying queen.

4. A half-brick, and slate on top, and a half-brick on top of the slate, and a small bat on top of the last half-brick, indicates that I have just taken a laying queen from the colony, and that I must give it a queen-cell soon. When a queen-cell is given, I go back to No. 1.

5. A half-brick, and two bats on top, with a slate by the side of the same on the hive, shows me that the colony needs extra attention of some sort, as shown by the slate every day, until the normal condition is restored; and so on *ad libitum*.

Grenada, 3 Miss.

For the American Bee Journal.

The Patsalaga, Ala., Convention.

The Patsalaga Bee-Keepers' Association met at the residence of Mr. J. R. McClendon, Ramer, Ala., on Sept. 10, 1885. The meeting proved to be harmonious, instructive and interesting. Many citizens were present who manifested much friendship and good-will toward the interest of bee-keeping in their locality. Several subjects usual among bee-keepers were discussed, and some resolutions passed, among which was a resolution that the Secretary send a list of the names of the members for publication.

J. R. McClendon, Pres., Asa Carter, Vice-Pres., M. G. Rushton, Sec., M. H. Freeman, Asst. Sec., W. E. Freeman, E. Y. Lawrence, F. M. Amerson, N. P. Jackson, C. C. Freeman, R. O. Lawrence, George McClendon, J. J. McClendon, J. L. Soles, W. A. Haynes, T. J. Ellend, J. H. Norman, Mrs. E. E. McClendon, W. H. Urquhart, J. W. Hicks, Mrs. M. J. McClendon, F. M. Van, J. H. Lacy, S. G. Story, J. W. Jones, A. A. Stoddard, Walter Bozeman, Fred Pouncey, G. G. Long.

M. G. RUSHTON, Sec.

SELECTIONS FROM OUR LETTER BOX

Smart-Weeds.—L. M. Brown, Sergeant's Bluff, Ia, on Sept. 12, 1885, writes:

I send a package of plants. They are numbered from 1 to 4. The Nos. 1 and 4 are the best for honey. Please name them all. I have a fine swarm of bees to-day.

[These plants all belong to the genus *Polygonum*. They are popularly called smart-weeds, though not one of these possesses acrid properties as do some of their relatives. All are excellent honey-plants, but No. 1 is by far the best. In its natural state it usually grows on wet land, but in cultivation it succeeds well on any rich soil. The names are: No. 1. *Polygonum Pennsylvanicum*, No. 2. *P. Persicaria*, No. 3. *P. incarnatum*, No. 4. *P. orientale*.—T. J. BURRILL.]

Working on the Heart's-Ease.—Jno. Haskins, Empire Prairie, Mo., on Sept. 17, 1885, writes:

Bees wintered very badly here last winter, some lost all and others lost very heavy. This season there was a few days that bees worked finely on white clover, but then it became so very dry that up to about Sept. 1, they kept eating what they had gathered in the early part of the season. About that time we had rain, and since then bees have been doing splendidly on the heart's-ease.

Bees in Good Condition.—Jesse White, Perry, Ia, on Sept. 19, 1885, writes:

I increased my apiary from 16 to 28 colonies, then one became queenless which I united with another, thus leaving 27. All are in good condition, I think, with plenty of honey for winter, which they have stored since Aug. 20, from smart-weed. Previous to that time they barely made a living. I will get about 75 pounds of surplus honey and 10 pounds of wax altogether. We have had no frost here yet.

Excellent Season.—6—Wm. Malone, (5—31), Oakley, Ia, on Sept. 19, 1885, writes:

This season has been one of the best for honey that I have known since I have been in the bee-business. I commenced with 5 colonies on May 15; one of them was good, one fair, and the rest almost nothing, the weakest one not covering more than one-half of a Langstroth frame. Such a time as I had with bees last spring I never want again. I have increased my apiary to 31 good colonies, and have taken 865 pounds of extracted honey, by actual weight, and sold it at 8½ cents per pound. I will take enough or more to make 200 pounds per colony, spring count. My young colonies are gathering 2 pounds of honey per day now. We have had no frost yet, and the bees are working as

strong to-day as they did in July. Linden did not amount too much, as it lasted only three days. All except 2 colonies of my bees have not killed their drones yet. I have had all the empty combs that I could use, and so made my increase by division, and kept the queens all the time at their best, never allowing them to become cramped for room. I reared all Syrian queens mated with Cyprian-Italian drones. This year I had my queens mated as I wanted them to be, for the first time. We had a cold spell on Sept. 8 and 9, and I had some bees chilled that could not get into the hives for want of room. They chilled at the entrances. On Aug. 20 my strongest colonies had 14 combs with brood, and they have to-day from 5 to 6 combs of brood. What will I do this winter, for I cannot get them on 10 combs, unless they die with old age faster than I think they will?

Best Season for 10 Years.—F. M. Taintor, Coleraine, Mass., on Sept. 21, 1885, says:

The past season has been the best for honey since I have been in the bee-business, which is about 10 years. The forepart of the season was very good, but when basswood bloomed it was simply immense—the blossoms seemed to be dripping with liquid sweetness, and the way my Albinos brought in the honey would make any bee-keeper happy.

Working on the Goldenrod.—Henry Alley, Wenham, Mass., on Sept. 21, 1885, says:

Just as I had commenced to feed my bees, the weather changed from cold to warm, and for the past ten days bees have been at work upon goldenrod, and have stored enough honey to carry them safely through the winter. We have goldenrod in great abundance here—our road-ways are lined with it, besides, there are acres of it within one mile of my apiary. We are sure of a good crop of honey from it when the weather is favorable.

The Weather—My Honey Crop.—C. Thielmann, Thielmantown, Minn., on Sept. 19, 1885, writes:

The weather for the past 4 or 5 weeks has been very unfavorable for bees here, so that they could not gather as much as they consumed, although there was an abundance of flowers, but it was too cold for honey secretion. Yesterday was the only day since about Aug. 20, that my bees did much of anything, and they were busy all day and came home laden with honey and pollen. They worked until they could not see any more in the evening. Although most of the corn has been frozen, on Sept. 1 and 2 the fall flowers were looking fresh and bright. I commenced with 90 colonies in the spring, increased them, by natural swarming, to 170, and obtained 6,500 pounds of honey, 1,000 pounds of which was extracted. Nearly all of it is clover and basswood. Last night we had a heavy rain, but it is nice and warm this morning.

Results of the Season.—J. A. Pearce, Grand Rapids, Mich., on Sept. 21, 1885, writes:

I increased my bees from 3 colonies to 11, by letting them swarm once and hiving the swarms on the old stands, and in a few days I separated the old colony into 3, dividing the queen-cells as near equally as possible. I was not quite quick enough with the last, as they had torn down all the queen-cells but one, or I would have had 12 colonies. I had no after-swarms, no watching, no loss of queens, and the colonies are all strong, and the hives are full of honey. I had combs with some honey to give the most of them, as I lost 8 colonies last winter that were on the summer stands in double-walled hives. My bees did not swarm this year until about July 1. I obtained 200 pounds of honey in 1-pound sections.

National Bee-Keepers' Union.

CONSTITUTION.

ARTICLE I.—This organization shall be known as the "National Bee-Keepers' Union," and shall meet annually, or as often as necessity may require.

ARTICLE II.—Its object shall be to protect the interests of bee-keepers, and to defend their rights.

ARTICLE III.—The officers of this Union shall consist of a President, five Vice-Presidents, and a General Manager (who shall also be the Secretary and Treasurer), whose duties shall be those usually performed by such officers. They shall be elected by ballot, and hold their several offices for one year or until their successors are elected and installed; blank ballots for this purpose to be mailed to every member by the General Manager.

ARTICLE IV.—The officers shall constitute an Advisory Board, which shall determine what action shall be taken by this Union, upon the application of any bee-keepers for defense, and cause such extra assessments to be made upon all the members as may become necessary for their defense.

ARTICLE V.—Any person may become a member by paying to the General Manager an Entrance Fee of ONE DOLLAR to the Defense Fund, and an annual fee of 25 cents, for which he shall receive a printed receipt making him a member of this Union, entitled to all its rights and benefits. The annual fee shall be due on the first day of July in each year, and MUST be paid within 30 days in order to retain membership in this Union.

ARTICLE VI.—Donations of any amount may be made at any time to the Defense Fund, in addition to the entrance and membership fees and the regular assessments made upon the members by the Advisory Board.

ARTICLE VII.—The Defense Fund shall be used for no other purpose than to defend and protect bee-keepers in their rights, after such cases are approved by the Advisory Board, and shall only be subjected to Drafts regularly made in writing by the Advisory Board.

ARTICLE VIII.—The annual fees paid by the members shall become a general fund, from which shall be paid the legitimate expenses of this Union, such as printing, postage, clerk-hire, etc.

ARTICLE IX.—Meetings of this Union shall be held at such times and places as shall be designated by the Advisory Board, or upon the written requisition of ten members.

ARTICLE X.—This constitution may be amended by a majority vote of all the members at any time.

The National Bee-Keepers' Union.

LIST OF MEMBERS.

Addenbrooke, W.,
Allen, Ransom,
Alley, Henry,
Anderson, J. Lee,
Anderson, Wm.,
Angell, C. S.,
Asp, N. Wall, Jno.,
Babb, Enoch,
Baldwin, B. T.,
Ball, Miss J. M.,
Barnes, Wm. M.,
Baxter, E. J.,
Bean, C. M. & W. L.,
Bernsheim, Ernst,
Bease, H. M. D.,
Billings, L. P.,
Billing, Peter,
Bitzer, Wm.,
Blanchard, O. C.,
Blount, C. N.,
Bohn, Gustav,
Bray, Moses,
Brickey, Peter,
Brown, A. J.,
Buchanan, J. W. & Bro.,
Bucklew, J. A.,
Burrell, H. D.,
Burton, L.,
Camp, C. A.,
Camp, G. W.,
Carder, A.,
Chapman, B.,
Chapman, J.,
Cheney, H. H.,
Christian, P. J.,
Clarke, Rev. W. F.,
Clickenger, Earlie,
Connely, John T.,
Cook, Prof. A. J.,
Cripe, Henry,
Dadant, Chas.,
Dadant, C. P.,
Darby, M. E.,
Dayton, C. W.,
Decker, A. A.,
Decker, C. K.,
Demaree, G. W.,
Dibbern, C. H. & Son,
Dickason, T. B.,
Dittmer, Gus,
Dodge, U. E.,
Doolittle, G. M.,
Dorr, Dr. H. R.,
Dowas, Robert,
Drane, E.,
Dunham, P.,
Dunn, John,
Eaglesfield, E. C.,
Eastwood, L.,
Edson, A. S.,
Elwood, Sr., W. R.,
Falsoner, J.,
Feathers, Harvey,
Flanagan, E. T.,
England, P. J.,
Enke, Wm.,
Follett, Charles,
Forbes, W. K.,
France, E. & Son,
Freeborn, S. I.,
Fulton, W. K.,
Funk, H. W.,
Furness, Dwight,
Ganter, A. M.,
Goodrich, A. S.,
Green, Charles H.,
Greening, C. F.,
Greiner, G. C.,
Greiner, Friedemann,
Gresh, Abel,
Grimm, Christopher,
Griswold, Fred,
Harding, Benj.,
Hartens, J. G.,
Harrison, S. H.,
Hart, F. M.,
Haskin, A. S. M. D.,
Hatch, C. A.,
Havens, Reuben,
Hayhurst, E. M.,
Heater, Mrs. J. N.,
Heddon, James,
Hensley, J. P.,
Hettel, M.,
Hill, A. G.,
Hills, Mrs. H.,
Hilton, George E.,
Hobler, Geo.,
Hoke, Abe,
Hollingsworth, C. M.,
Howard, J. B.,
Hoyle, George H.,
Huse, Wm. H.,
Hutchinson, W. Z.,
Hyne, James M.,
Illinski, Dr. A. X.,
Isham, H. B.,
Jackson, Andrew,
Jardine, Jas.,
Jones, George W.,
Killough, J. M.,
King, D. N.,
King, T. Frank,
Koeppen, August,
Lamney, John,
Langstroth, Rev. L. L.,
Lanning, John,
Lawton, B. IV.,
Le Roy, J. W.,
Lindsley, L.,
Ludkey, Charles,
Ludloff, K.,
Lyman, W. C.,
Lynch, Jno. C.,
Maddox, W. T.,
Mahin, Rev. M.,
Mallory, S. H.,
Manum, A. E.,
Mardon, Henry,
Margrave, J. W.,
Mason, Jas. B.,
Mattoon, Jas.,
McConnell, James,
McCormick, Emery,
McGee, Charles,
McLees, S.,
McNay, Frank,
McNeill, James,
Millard, D.,
Miller, B. J. & Co.,
Miller, Dr. C. C.,
Miller, Henry,
Mills, L. D.,
Minnick, F.,
Minor, N. F.,
Morse, William,
Muth, C. F.,
Muth-Rasmussen, Wm.,
Nelson, James A.,
Newman, Alfred H.,
Newman, S. M.,
Newman, Thomas G.,
Nipe, James,
Nutt, W. C.,
Ochaner, J. J.,
Osburn, A. W.,
Owens, J. J.,
Parker, D. G.,
Payn, W. N.,
Pennoyer, L. A.,
Perkins, Nelson,
Peterson, Geo. B.,
Peters, Jno.,
Phelps, N. T.,
Pond, Jr., J. E.,
Powell, E. W.,
Pray, G. L.,
Rainey, Jarvis,
Ralsch, H.,
Reed, L.,
Reed, L. G.,
Rey, John,
Reynolds, M. G.,
Roberts, Jesse H.,
Root, A. L.,
Rose, C. H.,
Rowe, David,
Royer, Burr,
Schaper, E. F.,
Scheuring, Paul,
Seabright, L. C.,
Sears, J. W.,
Secor, Eugene,
Shapley, D. L.,
Shearman, J. O.,
Shirley, W. H.,
Shuck, J. M.,
Slade, W. D.,
Smith, George,
Smith, Mrs. Martha,
Smith, E. A.,
Spady, Jno.,
Spencer, M. L.,
Stearns, J. K.,
Stephenson, H. W.,
Stephens, W. B.,
Stewart, V. H.,
Stocker, Wm. S.,
Stolley, Wm.,
Storock, C. H.,
Storer, E. M.,
Talbert, M.,
Taylor, George,
Taylor, R. L.,
Thatcher, Will,
Thellmann, C.,
Thompson, Geo. M.,
Tinker, Dr. G. L.,
Tongue, L. N.,
Travis, F. W.,
Treadwell, W. B.,
Trimberger, John,
Turner, T. E.,
Twining, M. J.,
Tyner, Alonzo,
Vanhouten, C. W.,
Walton, P. L.,
Walton, Col. R.,
Webster, H. S.,
Weeks, C.,
Wendt, Henry,
Whitney, W. V.,
Wicherts, A.,
Wilkins, Miss Lucy A.,
Wolcott, Wm. C.,
Wright, W. D.,
Wurth, Dan.,
Zwiener, H. L.

Room for many more.

Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,
Monday, 10 a. m., Sept. 28, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY.—The market is steady at 15 cts. per lb. for white comb honey in 1-lb. sections. Receipts and sales are keeping pace with each other. Some well filled 1/2-lb. sections, this week, brought 16 cts. Extracted honey brings 5@5c., with a steady feeling prevailing.

BEESWAX.—23@24c. on arrival.

R. A. BURNETT, 161 South Water St.

BOSTON.

HONEY.—We have received quite a large stock of honey, mostly from Vermont, and the quality is very fine. We are doing the best we can to keep the price up where bee-keepers can get something for their honey. One of the largest producers of honey sold his entire crop at a very low price, and honey is being sold here so that it will leave bee-keepers nothing. We still hold our prices at 16@18 cts. for 1-lb. sections, and 14@16c. for 2-lbs. Extracted is 5@5c. per lb.

BEESWAX.—30 cts. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

NEW YORK.

HONEY.—There is not much change in the market. The new crop is coming in quite freely, and is selling readily at the following prices: Fancy white clover, in 1-lb. sections, 14@15 cts.; the same in 2-lb. sections, 12@13c.; fair to good, in 1 and 2 lb. sections, 10@11c.; fancy buckwheat, in 1-lb. sections, 11@12c.; the same in 2-lb. sections, 9@10c. Extracted, white, clover, 6@7c.; buckwheat, 5@6c.

BEESWAX.—Prime yellow, 25@28c.

MCCAUL & HILDRETH BROS., 34 Hudson St.

CINCINNATI.

HONEY.—No change has taken place in the general feature of the market. Demand is slow for extracted honey with abundance on the market. Extracted honey brings 4@5c. on arrival, and choice comb honey 15@16c. in a jobbing way.

BEESWAX.—Is in fair demand, and arrivals are good. We pay 23@24c. for good yellow.

P. S. The following explanation in regard to markets seems to be in order to post some bee-keepers and save them from disappointments. When quoting prices "on arrival," I mean to say that honey will bring about the price quoted, or that a figure within the range given, will appear reasonable or acceptable to a purchaser. I quote as nearly as possible the price at which I am buying and selling. I do not mean to say that purchasers are waiting for the arrival of honey and are anxious to buy at those prices quoted, nor that I am willing to pay those prices on arrival for all the honey that may be shipped here. This latter would require a larger capital than I and two more of the largest dealers in America possess. It is unpleasant for us to be over-run with honey for which I will not pay on arrival, unless agreement has been made previous to shipment.

C. F. MUTH, Freeman & Central Ave.

SAN FRANCISCO.

HONEY.—Arrivals are quite light, with a probability of so continuing through the balance of the season. There is some inquiry for best qualities, with a firm market for the same. Quotations are as follows: White to extra white comb, 14@15c.; dark to good, 5@8c. Extracted, white liquid, 5@5 1/2 cts.; light amber colored, 4 1/2@5c.; amber and candied, 4 1/2c.

BEESWAX.—Quotable at 23@25c., wholesale.

O. B. SMITH & Co., 423 Front Street.

CLEVELAND.

HONEY.—The new crop is beginning to arrive and is selling at 14@15 cts. per lb. for choice 1-lb. sections. Old honey is very dull—none selling although freely offered at 10@12 cts. Extracted, as usual is not in demand in our market.

BEESWAX.—20@22 cts. per lb.

A. C. KENDEL, 115 Ontario Street.

KANSAS CITY.

HONEY.—We now report a very firm market with some advance in prices, though the trade take hold very slowly as yet, and complain terribly when the advance is quoted to them. We are now holding for 16@17c. for fancy white honey in 1-lb. sections, 15@16c. for 2 lbs., and 12@13c. for Calif. Fancy 1-lb. sections for us to be over-run will bring a good price. Extracted is a little firmer at about the same prices, viz: Miss., La. and Texas, 4@6c., and white clover and Calif., 7@8c.

BEESWAX.—Unchanged, 20@25c., according to quality.

CLEMONS, CLOON & Co., cor. 4th & Walnut.

WEEKLY EDITION
OF THE

THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
Weekly, \$2 a year; Monthly, 50 cents.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

SPECIAL NOTICE.—On January 1, 1886, the price of the Weekly BEE JOURNAL will be reduced to *One Dollar a Year*. This we have contemplated for some years, and only awaited the proper time to warrant us in issuing the Weekly BEE JOURNAL at the very low price of *one dollar a year*. That time has now come. We shall continue to improve the BEE JOURNAL, and it will maintain its proud position as the leading bee-paper of the World!

New subscribers will be supplied with the Weekly from now until the end of the year 1886, for \$1.25.

Those who have already subscribed for any portion of *next year* will have the time beyond January 1st doubled. These changes in the mail-list type are already made.

For \$1.25 we will send the Weekly BEE JOURNAL to new subscribers from now until the end of 1885—fifteen months. Now is the time to subscribe. The sooner it is done the more they will get for the money.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Bees and Poultry.—But few out-door pursuits go so well together as bees and poultry. Give the poultry the necessary attention in the morning and evening, and give the bees such of the time between as becomes necessary. We have made arrangements by which we can supply the American Poultry Journal (price \$1.25) and the Weekly BEE JOURNAL both for \$1.75 a year. This is a rare opportunity to get two standard papers for less than the price of one.

Any person not a subscriber, receiving a copy of this paper, will please consider it an invitation to become a subscriber to it.

Local Convention Directory.

1885. *Time and place of Meeting.*
Oct. 1.—Southern Illinois, at Duquoin, Ills.
F. H. Kennedy, Sec., Duquoin, Ills.
Oct. 2.—Union, at Dexter, Iowa.
M. E. Darby, Sec., Dexter, Iowa.
Oct. 10.—Wabash County, at N. Manchester, Ind.
J. J. Martin, Sec., N. Manchester, Ind.
Oct. 15, 16.—Western, at Independence, Mo.
C. M. Crandall, Sec., Independence, Mo.
Oct. 15.—Progressive, at Macomb, Ills.
J. G. Norton, Sec., Macomb, Ills.
Oct. 21.—Md., Va. & W. Va., at Hagerstown, Md.
D. A. Pike, Pres., Smithsburg, Md.
Oct. 28, 29.—Central Illinois, at Jacksonville, Ills.
Nov. 5, 6.—N. J. & Eastern, at Trenton, N. J.
Wm. B. Treadwell, Sec., 16 Thomas St., N. Y.
Nov. 12.—Central Michigan, at Lansing, Mich.
E. N. Wood, Sec., N. Lansing, Mich.
Dec. 8—10.—Michigan State, at Detroit, Mich.
H. D. Cutting, Sec., Clinton, Mich.
Dec. 8—10.—North American, at Detroit, Mich.
W. Z. Hutchinson, Sec., Rogersville, Mich.
Dec. 8—10.—Northwestern, at Detroit, Mich.
W. Z. Hutchinson, Sec., Rogersville, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, \$2.50. Five hundred will be sent postpaid for \$10.00; or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by" etc. (giving the name and address of the beekeeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Preserve your papers for reference. If you have no BINDER we will mail you one for 75 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

Sample Copies of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview by sending the names to this office, or we will send them all to the agent.

All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. The prices are as follows:

For 50 colonies (120 pages).....\$1 00
" 100 colonies (220 pages)..... 1 25
" 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

When Marketing Extracted Honey, it is a sad blunder to use barrels holding from 300 to 500 pounds—they are too large to be desirable for the trade, too bulky to be handled with care in transportation, and too dear to be lucrative to the producer, for honey put up in such large barrels is subject to a discount of one cent per pound, because of the difficulty in disposing of it without repacking and dividing into smaller lots.

Advertisements.

85 COLONIES of BEES for SALE.

SYRIO-ITALIANS and RED-CLOVER ITALIANS—all on L. frames, mostly wired. Wishing to go South for my health, I offer the above in lots of 5 or more, at \$5 per colony, or \$3.00 for the lot, if taken soon; together with extractor, section-cases, and extra frames. All re-queened from the best strains this year.

J. SINGLETON,
39A1t Brooklyn Village, Cayuga Co., O.

BEESWAX.

We pay 20c. per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

HONEY

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